Application No.: 10/574,907 Docket No.: 0425-1253PUS1
Reply dated: November 19, 2010 Page 2 of 11

Reply dated: November 19, 2010 Reply to Office Action of August 19, 2010

## AMENDMENTS TO THE CLAIMS

1. (Currently Amended) A film-type catalyst for production of a tertiary amine, which is used in producing a tertiary amine from an alcohol and a primary or secondary amine as the starting material;

wherein said film-type catalyst comprises catalyst particles bound to one another via a synthetic resin as a binder;

wherein said particles form a three-dimensional network structure via the binder on a substrate;

wherein said film-type catalyst has a thickness of 500  $\mu m$  or less and a pore volume of not less than 0.5 mL/m<sup>2</sup>,

whereby the diffusion rate in the catalyst layer is increased due to said three-dimensional network structure, and the mass transfer between the inside and outside of the catalyst can be promoted thereby utilizing the whole of the catalyst and simultaneously suppressing the excessive reaction of an intermediate reaction product in the inside of the catalyst;

wherein the inside of the catalyst is a site of reaction for producing said tertiary amine: and

wherein the synthetic resin is in an amount of 20 to 80 parts by weight relative to 100 parts by weight of a powdery catalyst active substance on the basis of the starting material.

- 2. (Original) The film-type catalyst according to claim 1, which has a thickness of 100 μm or less.
  - 3. (Original) The film-type catalyst according to claim 1 or 2, which comprises copper.
- 4. (**Previously Presented**) The film-type catalyst according to claim 1, which is fixed on the surface of a substrate.
- 5. (**Previously Presented**) The film-type catalyst according to claim 1, which has a pore volume of 0.5 to 30 mL/m<sup>2</sup>.

Docket No.: 0425-1253PUS1 Application No.: 10/574,907 Page 3 of 11

Reply dated: November 19, 2010

Reply to Office Action of August 19, 2010

6. (Original) The film-type catalyst according to claim 5, wherein the synthetic resin

comprises thermosetting resin.

7. (Original) The film-type catalyst according to claim 5 or 6, wherein the synthetic

resin comprises phenol resin.

8. (Previously Presented) The film-type catalyst according to claim 4, wherein the

substrate is a metal foil.

9. (Previously Presented) The film-type catalyst according to claim 4, wherein the

substrate is a honeycomb structure.

10. (Currently Amended) A process for producing a tertiary amine, which comprises a

step of reacting an alcohol with a primary or secondary amine inside in-the-presence of a film-

type catalyst having a thickness of 500 µm or less and a pore volume of not less than 0.5 mL/m<sup>2</sup>,

wherein said film-type catalyst comprises catalyst particles bound to one another via a

synthetic resin as a binder;

wherein said particles form a three-dimensional network structure via the binder on a

substrate;

whereby the diffusion rate in the catalyst layer is increased due to said three-dimensional

network structure, and the mass transfer between the inside and outside of the catalyst can be

promoted thereby utilizing the whole of the catalyst and simultaneously suppressing the

excessive reaction of an intermediate reaction product in the inside of the catalyst; and

wherein the synthetic resin is in an amount of 20 to 80 parts by weight relative to 100

parts by weight of a powdery catalyst active substance on the basis of the starting material.

11. (Cancelled)

12. (Previously Presented) The process according to claim 10, wherein the film-type

catalyst has a thickness of 100 µm or less.

Application No.: 10/574,907 Docket No.: 0425-1253PUS1
Reply dated: November 19, 2010 Page 4 of 11

Reply to Office Action of August 19, 2010

13. (Previously Presented) The process according to claim 10, wherein the film-type catalyst comprises copper.

- 14. (Previously Presented) The process according to claim 10, wherein the film-type catalyst is fixed on the surface of a substrate.
- 15. (Previously Presented) The process according to claim 14, wherein the substrate is a metal foil.
- 16. (**Previously Presented**) The process according to claim 14, wherein the substrate is a honeycomb structure.